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STUDENTS' PHYSICAL ACTIVITY BEHAVIOUR AND SPORTS  
SERVICES AT SAMK

Degree Programme in Physiotherapy

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# STUDENTS' PHYSICAL ACTIVITY BEHAVIOUR AND SPORTS SERVICES AT SAMK

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The purpose of this thesis was to determine the level of physical activity among the students of Satakunta University of Applied Science. In addition, to find out what type of physical activity services is provided by the University at each campus and to define the students' activity and interest to use and participate into offered opportunities.

This thesis was carried out as a survey research in autumn 2010. The questionnaire included both closed and open questions. In total of 909 answers were received. This means that the survey was answered by 16,6 percent of the students in Satakunta University of Applied Sciences.

This research showed that students' opportunities for physical activity are unequal in the campuses. Mainly this fact was observed through the differences in provided sport facilities. Students have on average 15–30 minutes of daily physical activity. Based on this research, students engage in aerobic exercise little less than 3 hours per week and in muscle strength training nearly 2 hours per day. The most important reasons for exercise included good physical fitness, enjoyment of exercise and exercise's general meaning to health and wellbeing. Use of sport facilities on campuses is rare at the moment and satisfaction towards facilities varied to a great extent. Students have the interest to participate in physical activity as in most of the campuses 41 to 62 percent of the students reported that they would be interested to participate in organized physical activities. Students hope for instructed group exercises and team sports. Also co-operation with commercial and municipal sports services is in students' wishes.

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## 1 INTRODUCTION

Health and workability are the base for people's wellbeing. Exercise is an essential part of maintaining workability and physical and mental health, during different periods of human life. Therefore it is important to ensure the health and workability of the whole population by offering adequate and appealing exercise services. Exercise also adds opportunities for participation and self-fulfilment, prevents alienation and increases active citizenship. (Ministry of Education 2006, 15.) To secure equal exercise services for everyone and to ensure development of these services, different areas of the country are required to take into consideration in the sport policy (Ministry of Education and Culture 2010, 19).

In order to promote exercise, it is important to understand its health effects and its importance for the society. In addition, it is required to recognize the ways to increase exercising and provide support for the people in this matter. Exercise promotion is about affecting the knowledge, skills and attitudes of the individual, providing social support and adapting the surrounding so that it attracts and offers opportunities for exercise. (Fogelholm 2006, 47–48.)

Studying can be thought to be student's work. Workability of the student can be seen to consist of four factors: student's capabilities, study skills, support of the community and support of the society. From these, student's own capabilities include for example health, living habits and social relationships. Community's support is in turn linked to the student's physical environment including the study facilities but also sport and other leisure time facilities. In addition, appreciation of welfare and health promotion is part of community's support. (Kurri 2006, 38–39.)

The purpose of this study is to determine the level of physical activity among the students of Satakunta University of Applied Science. Find out what type of physical activity services is provided by the University at each campus and to define the students' activity and interest to use and participate into offered opportunities.

## 2 PHYSICAL ACTIVITY IN HIGHER EDUCATION INSTITUTIONS

The important meaning of exercise is recognized in the health promotion programme where the sport policy aims to promote wellbeing, health and functional capacity in all phases of life. Health problems, caused by poor living habits, cause large expenses for the society and therefore preventive work and health promotion are important also economically. It is important to ensure that children and youth will grow to be healthy and active adults and the working age adults have good workability and they are satisfied with their work and therefore willing to stay in working life for longer. (Prime Minister Matti Vanhanen's 2<sup>nd</sup> Cabinet 2007, 22–38.)

Policy programme for health promotion draws the attention for example to the methods of developing the structures of health promotion and its legislation as well as to the functional capacity and workplace welfare of working age people. In addition, attention is needed to divide the responsibility of preventive work and health promotion, emphasize the meaning of exercise for wellbeing and enhance the healthiness of the environment. (Prime Minister Matti Vanhanen's 2<sup>nd</sup> Cabinet 2007, 22–30.)

Health enhancing physical activity means the physical activity that promotes health and increases the positive effects of exercise without risks and dangers of excessive exercise. In health enhancing physical activity two aspects may be distinguished; basic activity and fitness training. The main purpose of basic activity is not exercising but it is achieved for example by walking to store, playing with children or by doing yard work. Fitness training, such as jogging, cycling and skiing, is more target-oriented and improves cardio-respiratory and musculoskeletal fitness. (Fogelholm & Oja 2005, 74–78)

Based on the recommendations by UKK-institute aerobic physical activity should be improved by exercising multiple times per week either 2 hours and 30 minutes on moderate level or 1 hour and 15 minutes strenuously. In addition muscle strength and

balance should be trained at least twice per week. (Physical Activity Pie, UKK-institute)

## 2.1 Recommendations and plans for physical activity

Universities of Applied Sciences are the only part of Finnish education system that is not required by law to organize sports services (Ministry of Education 2008, 76; Uusimäki 2007, 65). However, the amendment done in 2009 presumes the government to follow how physical exercise services are organized and if needed, take act in order to improve the physical activity opportunities. (EV 102/2009 vp 2009)

A proposal for a national programme for sport and physical activity provides overall guidelines for action and proposes what and how to develop. For higher education institutes it gives a goal to improve the physical, mental and social wellbeing of the community by preparing a wellbeing strategy which includes physical activity. Purpose of this strategy is to support community's goal by increasing the humane resources. Wellbeing strategy establishes the resources and responsible quarter for the support services, which include for example organizing the sports services. (Ministry of Education 2008, 76–77.)

To ensure the sports and wellbeing services, the higher education institutes should increase the areal co-operation. Co-operation with municipalities, civic organizations and companies are also needed to guarantee the attainability of services. Ministry of education, Finnish Student Sport Federation (OLL) and the higher education institutes will pilot a regional model to develop the sports service system. The goal is to produce a national operation model, and by regional adaptations, to offer tempting sports services to all regional higher education institute communities. Student organizations will lead the student-oriented physically active culture. The students are encouraged to participate, influence to their living conditions and take responsibility for their own wellbeing. Campuses, faculties and departments use the sport opportunities more as a part of promoting communality. (Ministry of Education 2008, 77.)

The Ministry of Education gave an action plan to implement the Council of State's decision in practice. Factors mentioned in the action plan include development of physically active culture by the student organization. As well, the student health care services should enhance the students' knowledge about the significance of preventive actions and the role of physical exercise to health. In addition universities should prepare welfare strategy which includes physical exercise and the demand for the members of university community. Also the areal co-operation between the universities is important in order to ensure the physical exercise and welfare services. (Ministry of Education 2009a, 2.)

The main aim of the sport policy by the Finnish Student Sport Federation (OLL) is to ease students' engagement in exercise (Finnish Student Sport Federation 2010b, 2). The sport policy programme is divided into two parts; policy paper and action plan. Policy paper describes the target state and action plan offers the ways to achieve that. The ultimate goal is a nationwide and equal sport system for the institutes of higher education where the services correspond to the actual needs of the members in the community. The wide network of sports services would offer the student an opportunity to use the services also outside the official location of their studies. In addition, the significance of exercise is acknowledged and seen as a strategically important resource and a part of daily activity in the institutions. (Finnish Student Sport Federation 2010a, 2–3.)

It is necessary to define the students' reasons for exercise and non-exercise more clearly so that it is possible to plan exercise services suitable for everyone. The services should also be noticed in strategy and budget level in order for them to be an actual part of the daily activity. The Finnish Student Sport Federation states that the most effective way to ensure equal exercise services is to make it a part of the higher education institutes' legal assignment. The state should make sure that each institute has adequate resources to provide affordable services. (Finnish Student Sport Federation 2010a, 5–7.)

Finnish Student Sport Federation (OLL), Universities Finland (UNIFI) and Rectors' Conference of Finnish Universities of Applied Sciences (ARENE) worked in co-operation to form an expert committee to formulate recommendations for the

functional physical activity services of higher education institutions and a proposal for how they can be executed (KK 454/2010 vp 2010). Recommendations by the expert committee include, that sports services should be regarded as a part of higher education institutions' strategy in order for it to contain the goals and means for sports services. To achieve this, higher education institutions should investigate regional opportunities for cooperation. Sports services should work to develop the community as well as the wellbeing and workability of the students. (Korkeakoululiikunnan asiantuntijatyöryhmä 2011, 4–25)

Based on the recommendations, each institution should have one full-time employee per 5000 students. This person would be in charge of planning the sports services according to the aims and to cooperate for example with other higher education institutions and student organizations in order to arrange the services. Students' needs and wishes should be clarified to ensure planning and implementation of appropriate and diverse sports services. Recommendations suggest that for every 1000 students sport facilities should be available 60 hours per week at the appropriate time. Exercise tutoring and collaboration between the student health services and sports services is presented as a way to activate physically passive students. (Korkeakoululiikunnan asiantuntijatyöryhmä 2011, 4–31)

## 2.2 Students' level of physical activity

Extensive research concerning the students in universities of applied sciences has not been made in many instances in Finland. The first nationwide survey of the students in universities of applied sciences was the Wellbeing of polytechnic students 2004 (Erola 2004). After this, Finnish Student Health Service (YTHS) conducted research on health including both students in universities and in universities of applied sciences in 2008 (Kunttu & Huttunen 2009).

The results of research Wellbeing of polytechnic students 2004 are based on the 3674 answers received out of 8400. Research includes students from 28 different universities of applied sciences. 6.7 percent of all students exercise daily and 55.8 percent exercise multiple times per week during their free time. 7.7 percent of



students report rare or no engagement at all to physical exercise. The difference between the sexes was obvious, 10.5 percent of the male students exercised rarely or never and within the female students the amount was 5.8 percent. (Erola 2004, 16–55.)

Students in the fields of social, health and sport as well as in natural resources and environment were the physically most active, whereas the students of culture exercised the least. The number of students that exercise rarely or never was the largest among the students in technology, transport and culture. (Erola 2004, 55–56.)

On average, students exercise approximately four hours per week. More than half of the students exercise independently, and nearly one third with a friend. The main reasons that limit exercising are the lack of time and money. In addition almost half of the student considered the physical activities organized by the Universities of Applied Sciences inadequate. (Erola 2004, 56.)

Finnish Student Health Service (YTHS) research includes the data of 2336 students from 27 different universities of applied sciences. The participants in the Student Health Survey 2008: a national survey among Finnish university students, were under 35 year old. Male students exercise on average little more than female students (3.92 hours and 3.50 hours respectively) but in the regularity of physical exercises there is no significant difference, 5.5 percent of students exercise daily and 16.9 percent four to six times per week. Approximately one third exercises two to three times per week. 11.2 percent of the students exercise rarely or never. (Kunttu & Huttunen 2009, 13–201.)

### 2.3 Sports services in higher education institutions

Higher education institutions have a special role in the society as they reach a significant part of the young adults. Being a student connects two important phases of our life; becoming independent and moving on to working life and starting a family. This provides an opportunity to influence on the attitudes towards exercise and to make exercise part of the permanent lifestyle. But as physical exercise services aren't officially required in the institutions of higher education, the opportunities vary

greatly. In some universities of applied sciences there are no sports services at all. (Ministry of Education 2008, 76; Uusimäki 2007, 17–65.)

Starck (2004) and Uusimäki (2007) studied physical exercise opportunities in the higher education institutions. They conclude that there are less exercise opportunities in universities of applied sciences than in universities. Uusimäki (2007) found out that most of the sports services are uninstructed. Services are more frequently free in universities of applied sciences than they are in universities. Furthermore, many of the institutions did not have follow-up systems in order follow the utilization rate of the services. (Uusimäki 2007, 34–43.)

In many of the institutions student organizations and unions have large role in organizing the physical exercise opportunities. Many of the institutions do not even have a mention of exercise services in their strategies or plans. This raises a question; how do the higher education institutions see the role of physical activity? Could the reason behind the missing opportunities be the lack of resources or the lack of appreciation towards exercise? (Uusimäki 2007, 56–66.)

Motivation of students and institutions' financial resources were seen as challenges when developing the services. Also the responsibility of higher education institutions was raised when planning and organizing the services. Some of the respondents also raised the question of whether physical exercise should be part of the obligatory studies to some extent. Low number of experts working in planning and development of the services was seen as a problem the research. Student involvement was also considered important in the development process. (Uusimäki 2007, 54–67.)

Starck (2004) inquired higher education institutions, student organizations, sports services of municipalities and student housing communities about students' physical activity opportunities. Based on their opinions, two factors were considered extremely important for students' physical activity: student discounts in sport facilities and that the sport facilities were located nearby the campuses. The research also inquired, which organization should be responsible for arranging students' physical activity opportunities. The role of municipality was considered the most significant, followed by the roles of institutions and student organizations. Increasing student discounts,

developing sports services and cooperation with other sectors were considered as potential developmental issues by the institutions. Starck recommends considering, how the collaboration could be concretely implemented since the views of the responsible quarter varies. She proposes that the institutions are responsible for students' workability by ensuring the exercise services. While the responsibility of the municipality is to provide chances for physical activity for all residents, the role of student organizations would be to encourage and support students in healthy and physically active lifestyle. (Starck 2004, 9–37.)

#### 2.4 Sports services at Satakunta University of Applied Sciences [SAMK]

Expert committee on the sports services offered by higher education institutions also investigated the current state of sports services in the institutions. Based on this research SAMK's strategy does not mention sports services. In addition, the facilities on campuses are available for students, at the appropriate time, on average 25 hours per week. Furthermore, SAMK does not have feedback system concerning sports services. Expert committee did not have information about finances, employee resources or about the number of users of the facilities. (Korkeakoululiikunnan asiantuntijatyöryhmä 2011, 35.)

Students' opportunities for physical activity vary greatly between the campuses. Some of the campuses have sport facilities in the campus area and in addition work in co-operation with commercial sports services while in other campuses there are no facilities at all (Table 1). Student union SAMMAKKO does not organize continuous physical activity services but students' wellbeing is promoted by sport events and different types of campaigns (Lamminen, personal communication on 27 September 2010).

Service center Soteekki in Pori has bought physical activity lessons from Pori Halli td in three occasions. Spinning lessons were arranged during autumn 2009 and spring 2010. During autumn 2010 students were able to participate in BodyPump lessons. Each time 10 sessions were organized. (Soteekki account information on 28 February 2011; Soteekki Pori, email message on 26 January 2011)

Table 1. Physical activity opportunities in SAMK campuses

Campus	Gym	Sport hall	Public sport services	Commercial services	Other information	
Business and Culture Pori	Available 24/7		Use of swimming halls for free in Meri-Pori and in centre from September to May	In Pori Halli instructed group exercises and use of badminton court. In Piukat paikat instructed group exercises and pace lesson. In both places student pay 3 Euro, campus pays another 3 Euro.		Ketamo 22.9.2010
Business and Culture Rauma		Ball game turn once per week. Use of sport hall is administered by the city			Recreational events by the student union. Through student union month cards (30€) and cards for 10 individual times (38€) to Kuntosumppu	RLO Kilta 21.2.2011; Vase 1.3.2011
Business and Culture Huittinen	Scheduled turn twice per week. Also allowed to use during the day if available	Scheduled floorball turn twice per week				Heilala 15.9.2010
Business and Culture Kankaanpää			Students can reserve free floorball, squash and badminton turns from public sport hall			Kallama 20.9.2010
Social Services and Health Care Pori	Available 24/7, unless space is reserved for classes	Scheduled turn twice per week			Swimming pool, which is used only for educational purposes	Rouhiainen-Valo 23.2.2011
Social Services and Health Care Rauma		No ready scheduled turns, students are able to reserve the sport hall. Use of sport hall administered by the city				Simula 20.9.2010
Technology and Maritime Management Pori	Freely for students to use				Instructed physical activity is arranged for each group. It is voluntary to participate and the students do not get credit points	Koskinen 28.2.2011; Koskinen 2.3.2011
Technology Rauma					Floorball turn reserved from Social Services and Health Care. Student union organizes events in autumn	Karinen 21.2.2011; Tähti 19.11.2010
Maritime Management Rauma	Available during weeks days until 10 pm	Available during weeks days until 10 pm			Swimming pool in use during weeks days until 10 pm	Koivisto 21.2.2011

### 3 PURPOSE OF THE RESEARCH AND RESEARCH QUESTIONS

Purpose of this study is to determine the level of physical activity among the students of Satakunta University of Applied Sciences, physical activity opportunities provided by the University in each on the campuses and the students' activity to use and participate into offered opportunities. This research offers the opportunity to improve the activity level of the students and the possibilities for it based on the students' own opinions and interests.

Research questions:

1. What physical activity opportunities SAMK and SAMMAKKO offer for the students in each campus? Do the students have equal possibilities in each campus to engage in physical activity?
2. How active the students are physically and what are the reasons for students to engage in physical activity?
3. How much of the students use the available possibilities and are the students interested to participate in organised activities?

### 4 RESEARCH METHODS

In the study, both quantitative and qualitative features were included. Quantitative approach is used fairly often in social sciences. It emphasizes universal causes and effects. Quantitative research deals with numbers and focuses to form tables from variables, to form data so that it can be processed statistically and to formulate conclusions based on the statistical analysis. This includes for example describing the results with tables and testing the statistical significance of the results. Qualitative research processes relevancies. The target is pursued to study as comprehensively as possible and methods that adduce subjects' perspectives are preferred. (Hirsjärvi, Remes & Sajavaara 2007, 133–160.)

In a survey research the data is collected in a standardized manner. This means that each question is presented the same way to all of the respondents. The advantage of a survey research is that it can be used to collect data from a large target group. It is also efficient as the data can be analyzed by using a computer. Low response is a common disadvantage in survey research and often it is 30–40 percent at highest. (Hirsjärvi et al 2007, 188–191.)

Research permission (APPENDIX 1) was applied and received from SAMK's Developmental Director for this research. Thesis plan, accepted in Satakunta University of Applied Sciences field of Social Sciences and Health Care, was attached to the application.

#### 4.1 Data collection

Questionnaire was made with Internet questionnaire program E-lomake. The link to the questionnaire was send to the student through e-mail. The questionnaire contained 26 questions in total from which five gathered background information about the respondents. Closed questions included questions about the level and type of physical activity, factors affecting engagement to exercise, physical limitations to exercise and the use of physical exercise facilities. The two open questions dealt with the individual reasons for physical exercise and physical activity opportunities that the individual is interested in. Questionnaire was made in Finnish and in English. The questions can be seen in APPENDIX 2.

Four different researches were used as references for the questions;

- Student Health Survey 2008: a national survey among Finnish university students (Kunttu, K. & Huttunen, T. 2009, 357–358),
- Wellbeing of polytechnic students 2004 (Erola, H. 2004, 96–98),
- Health Behaviour and Health among the Finnish Adult Population (Helakorpi, S. Laitalainen, E. & Uutela, A. 2010, 193–194) and
- Kansallinen liikuntatutkimus 2005-2006, Aikuisliikunta (Suomen Kuntourheiluliitto. 2006, 49–50).

A link to the questionnaire was sent to total of 5465 students<sup>1</sup> on 25<sup>th</sup> of October 2010, including the SAMK students in Bachelor's degree programmes – both youth and adult education – and in Master's degree programmes as well as the exchange students (N=119). By 31 October 2010, 647 answers were received. On 1<sup>st</sup> of November a reminder was sent to all and response time was continued until 7<sup>th</sup> of November 2010. In total 909 answers were received and the respondent rate was 16,6 percent.

Information about the physical activity opportunities and available facilities was collected from the Directors of Education, Programme Directors, Senior Lecturers and from a Lecturer depending on the campus. In addition, student unions RTOL and RLO Kilta, were contacted to enquire about their participation to offer physical activity opportunities for students.

## 4.2 Analysis

Research data was checked for incorrect and missing information. All the answers were accepted although part of the respondents had not answered all of the questions. Answers were missing from the data of 78 respondents, meaning 8,6 percent of the answers were lacking some information. The material was organized and analysed using Microsoft Excel-program and Excel-based Tixel-program. Answers to open question were listed to Microsoft Word-program and the content was analysed with qualitative methods.

Abbreviation p reports the level of statistical significance. P-value measures the statistical reliability of the conclusion or in other words the probability of inaccurate conclusion. A result is statistically very significant when  $p \leq 0.001$  and significant when  $p \leq 0.01$ . (Heikkilä 2002, 194–195.)

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<sup>1</sup> Total amount of students, their distribution on each campus and the amount of exchange students was gathered from the student office on 10<sup>th</sup> of November 2010.

### 4.3 Research process

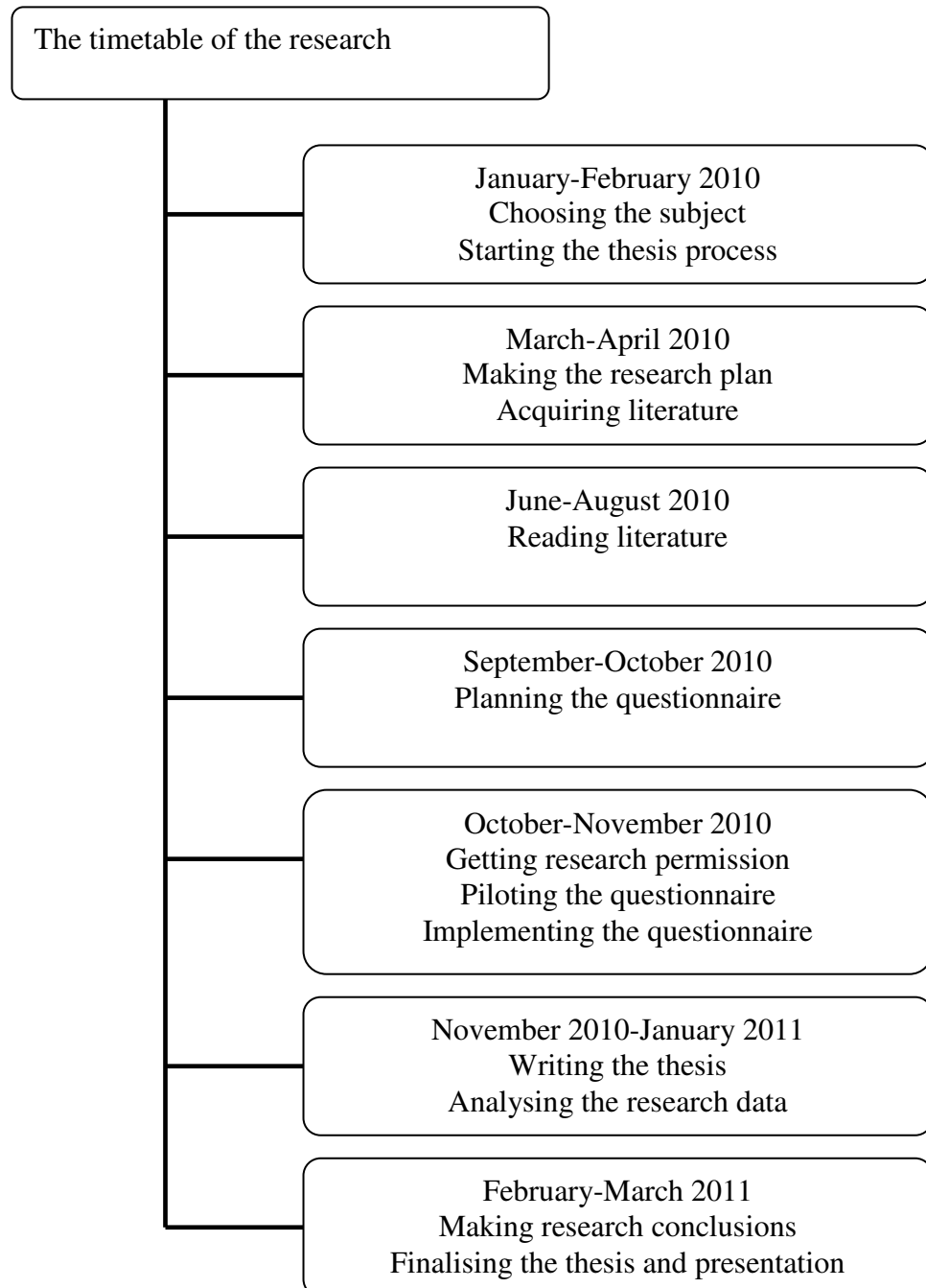


Table 2. Research process.



## 5 RESULTS

Research material is described so that respondents' background information is represented first. Thereafter the results will be presented by research questions. As it was not intended to send the questionnaire also to the Master's degree students and Bachelor's degree for adult education, it is not known how many of the respondents belong to these groups or compare the results between degree programme students. Four percent (n=33) of the respondents answered the English questionnaire. More detailed results with every background variable can be seen in APPENDIX 3.

### 5.1 Description of the sample

72 percent (n=651) of the respondents were women and 28 percent (n=257) men (Table 3). Respondents' ages ranged from 18 to 57 years, average age being 25,2 years (25,36 years among women and 24,96 years among men). 31 percent of the respondents were under 22 years. 36 percent were 22–24 year olds, 17 percent 25 to 29 year olds, seven percent of 30–35 year olds and ten percent over 36 year olds (Table 4). In this study the age groups were defined the same way as in Kunttu and Huttunen (2009) with an exception that this study also includes the students over 35 years old.

Table 3. Distribution by gender

Gender	Frequency	%
Woman	651	72
Man	257	28
Total	908	100

Table 4. Distribution by age

Age	Frequency	%
<21	280	31
22 - 24	326	36
25 - 29	153	17
30 - 35	59	7
36 -	88	10
Total	906	100

The response rate varied between the campuses from 9,9 percent to 25,4 percent. On average students in Social Services and Health Care were more active compared to the students of Technology and Maritime Management. The lowest response rate was in Business and Culture Kankaanpää. This means that students of Social Services and Health Care are over represented in this research and students of Technology and Maritime Management as well as students in Business and Culture Kankaanpää are under represented. (Table 5)

Table 5. Response activity and representativeness by campus.

Campus	Respondents	Present students	Response rate %	Percentage of the respondents %	SAMK students at campus %
Business and Culture Pori	188	1070	17,6	21	20
Business and Culture Rauma	116	635	18,3	13	12
Business and Culture Huittinen	58	397	14,6	6	7
Business and Culture Kankaanpää	12	121	9,9	1	2
Social Services and Health Care Pori	259	1150	22,5	29	22
Social Services and Health Care Rauma	77	303	25,4	8	6
Technology and Maritime Management Pori	133	1214	10,5	15	21
Technology and Maritime Management Rauma	65	575	11,3	7	11
Total	908	5465	16,6	100	101

## 5.2 Students' physical activity and reasons to engage in physical activity

Level of physical activity was defined with following questions:

1. How many minutes you walk or cycle during a day as part of your everyday physical activity?
2. How often do you do aerobic training at least ½ hour at a time, so that you get at least slightly out of breath and sweat?
3. How many hours per week do you do aerobic training?
4. How often do you do muscle training at least ½ hour at a time, so that you get at least slightly out of breath and sweat?
5. How many hours per week do you do muscle training?

Most commonly students' everyday physical activity is 15–30 minutes per day (44 percent, n=397). Roughly one fifth of the students (21 percent, n=192) have 30–60 minutes of everyday physical activity and 8 percent (n=76) over one hour per day. For about every sixth student (17 percent, n=156) the time is less than 15 minutes per day

and 9 percent (n=84) uses motor vehicle when travelling for example to school and hobbies. There is no difference between the genders within students that have plenty of everyday physical activity. However, the portion of male students who have little less everyday physical activity or do their journeys with motor vehicle is larger than the portion of female students (Figure 1).

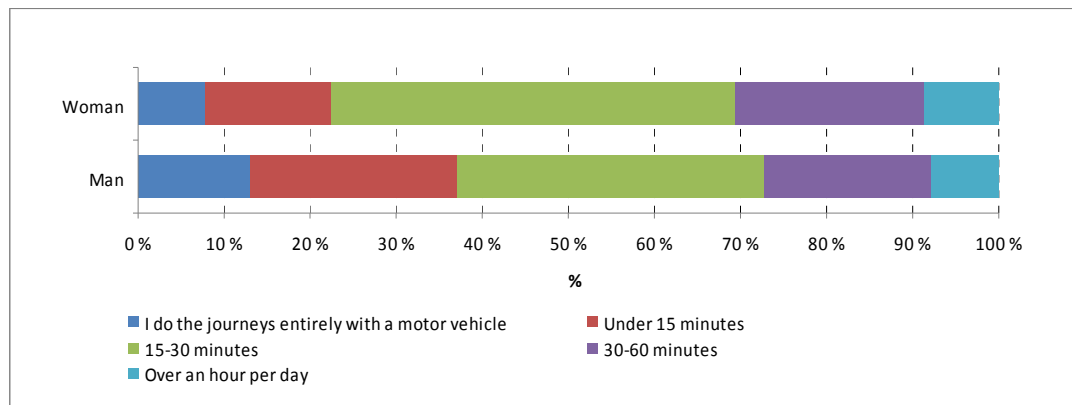


Figure 1. Amount of everyday physical activity between the genders (n=904; p=.0003).

When comparing everyday physical activity between campuses, it can be seen that use of motor vehicle is more common in campuses of Technology and Maritime Management in both Pori and Rauma as well as in Business and Culture Huittinen and in Social Services and Health Care Rauma. Also the portion of students that have less than 15 minutes of everyday physical activity is higher in these campuses, except from Social Services and Health Care Rauma where the portion is actually the smallest of all. Students in Social Services and Health Care in Pori use motor vehicles the least. Also the portion of students having less than 15 minutes of everyday physical activity is low. (Figure 2)

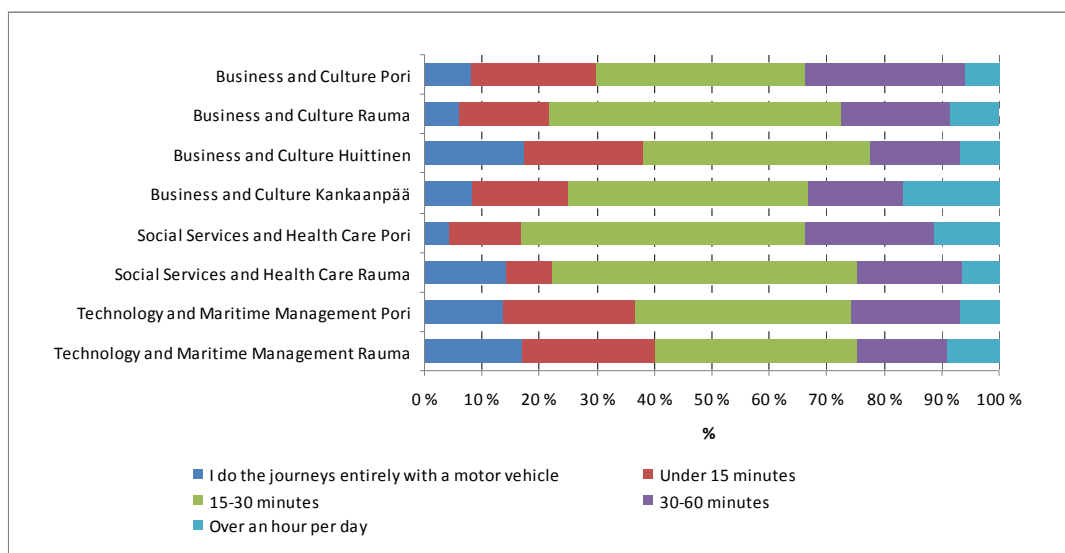


Figure 2. Amount of everyday physical activity on each campus (n=904; p=.0007).

With age the use of motor vehicle becomes slightly more common but also the portion of students that have high amount of everyday physical activity increases (Figure 3).

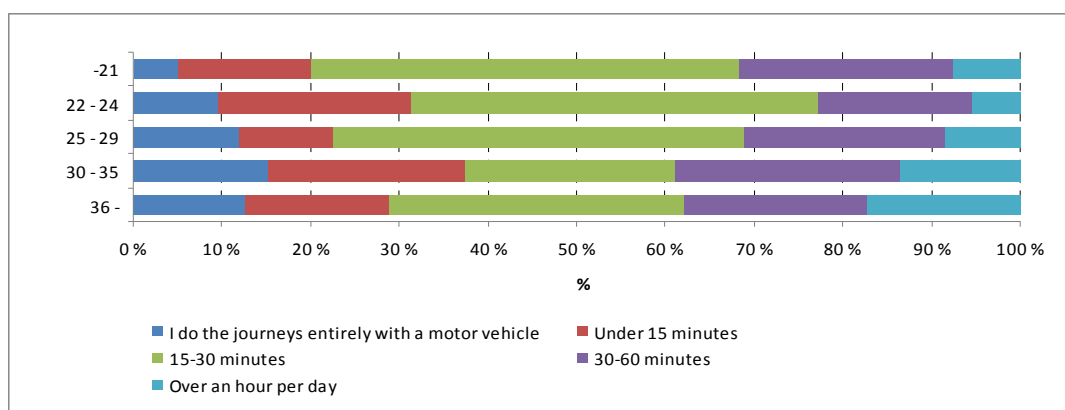


Figure 3. Amount of everyday physical activity between age groups (n=902; p=.0001).

Question about the physical activity during free time included and additional instruction: “Think about what is your normal situation. Temporary injury can be for example a fracture. Flu is not counted as temporary illness in this context.” Most commonly students perform aerobic physical activity 2–3 times per week and on average about 3 hours per week (N=891). Of all the students, 3 percent are not able to exercise due to a permanent or a temporary illness or injury. 10 percent claim no or rare engagement to exercise and one third (30 percent) exercise 1 to 4 times per

month. About half (53 percent) of the students exercise multiple times per week and 4 percent exercise daily. Based on these numbers at least 40 percent of the respondents do not perform aerobic exercise as frequently as it is recommended. Even though the frequency of aerobic training varies within the students in different campuses (Figure 4) any of the measured background variables did not have statistical significance to the frequency of aerobic training.

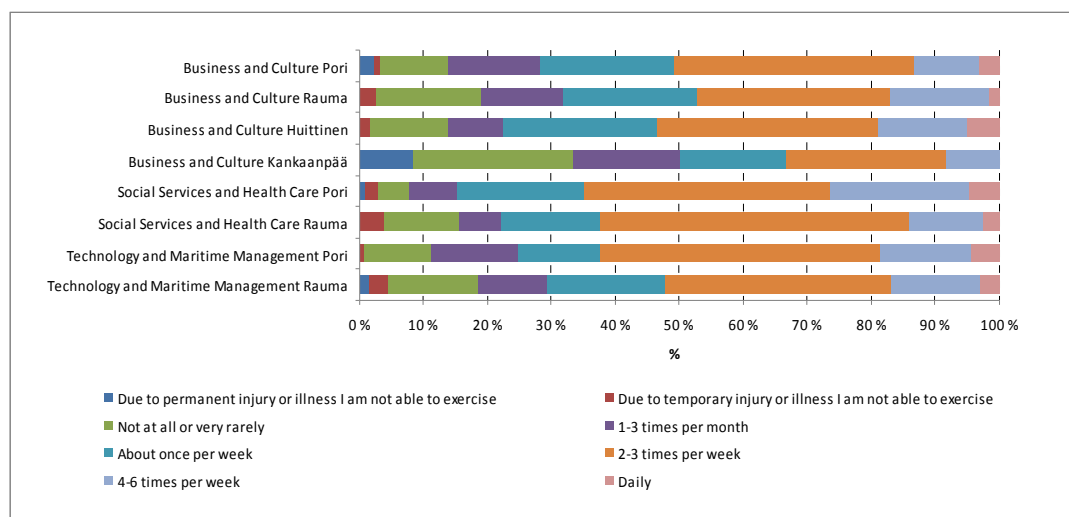


Figure 4. Frequency of aerobic training (n=906; p=.0425).

On average students perform muscle strength training 2 hours per week (N=879). Nearly every fifth (19 percent) student does not exercise muscle strength at all and 41 percent exercise 1–4 times per month at the most. 37 percent exercises at least 2 times in a week, which is the recommended frequency. Other background variables did not have statistical significance but male students exercise muscle strength more commonly than female students (Figure 5).

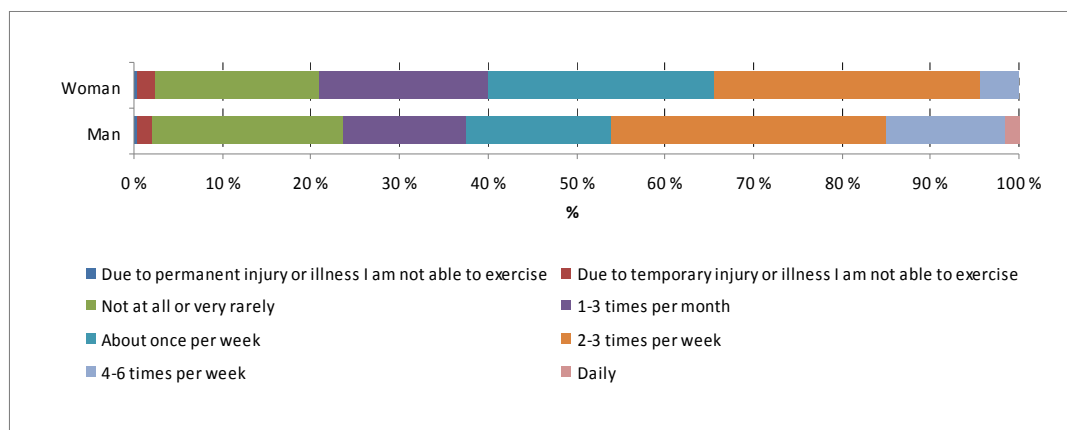


Figure 5. Frequency of muscle training by gender (n=899; p<0.001).

Students' reasons to engage in physical activity were searched with an open question. Several reasons were mentioned and there was no single factor above all others. Most mentioned reasons included good physical fitness, exercise's meaning for both physical and mental health and wellbeing, joy of physical activity as well as good physical and mental feeling obtained from exercise. Students also engage in physical activity because of weight management and to make changes to their appearance. Exercising is also considered as a way to take time for oneself and relieve stress as it balances everyday life and helps to cope in it. For some, exercising has become a way of life. Also the social effects of physical activity in addition to its meaning for workability, sleep and control of musculoskeletal problems were recognized in the answers.

### 5.3 Use of sport facilities and interest to participate into organized activities

At the moment the use of sport facilities on campuses is quite low as nearly four of five respondents never use them. Most frequently they are used in Business and Culture Pori and in other campuses in Pori as well as in Technology and Maritime Management Rauma (Figure 6). Younger students use the facilities more frequently than older students (Figure 7) and male students more compared to female students ( $p < 0.001$ ). In addition the students who answered the English version of the questionnaire use the facilities more regularly than students who answered the Finnish version ( $p < 0.001$ ).

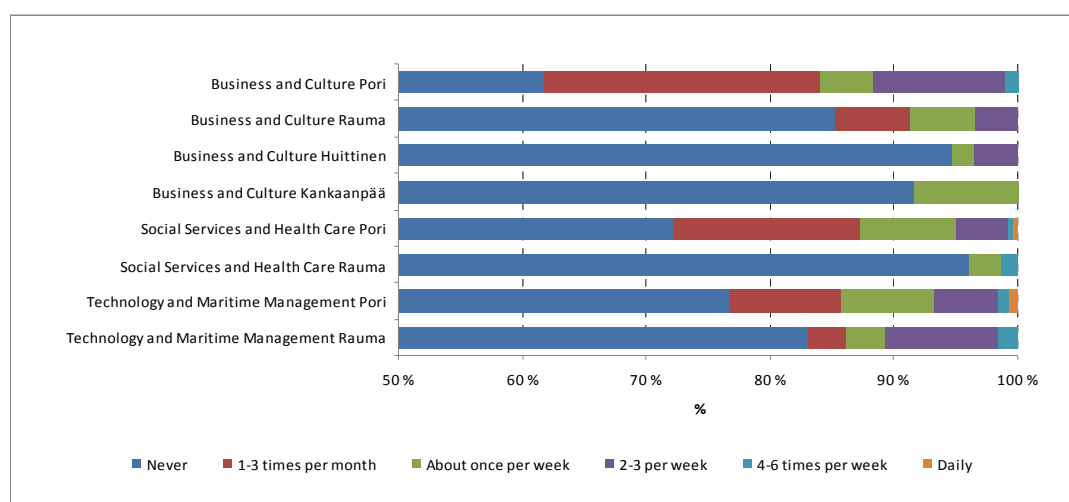


Figure 6. Use of physical activity facilities at campuses (n=906;  $p < 0.001$ ).

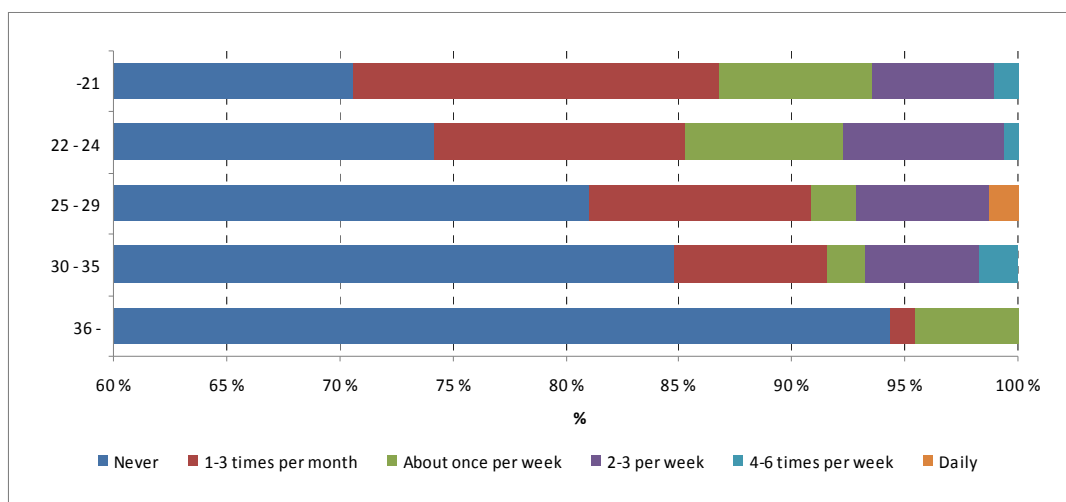


Figure 7. Use of physical activity facilities at campuses between the age groups (n=904; p=.0004).

Satisfaction to the provided sport facilities varied to a great extent between the campuses. On average, 37 percent of the students were satisfied and 26 percent were unsatisfied. 37 percent did not agree to either opinion. Students in Business and Culture Pori and in Social Services and Health Care Pori were more satisfied than the students in other campuses. Satisfaction varied from 13 to 55 percent. Only in these two places the satisfaction was 50 percent or higher. Students in both Technology and Maritime Management campuses, in Social Services and Health Care Rauma and in Business and Culture Kankaanpää were the most unsatisfied. In all of these campuses more than 44 percent of the students were unsatisfied. In Business and Culture Rauma, as well as in Huittinen the portion of students without clear opinion was the largest (Figure 8).

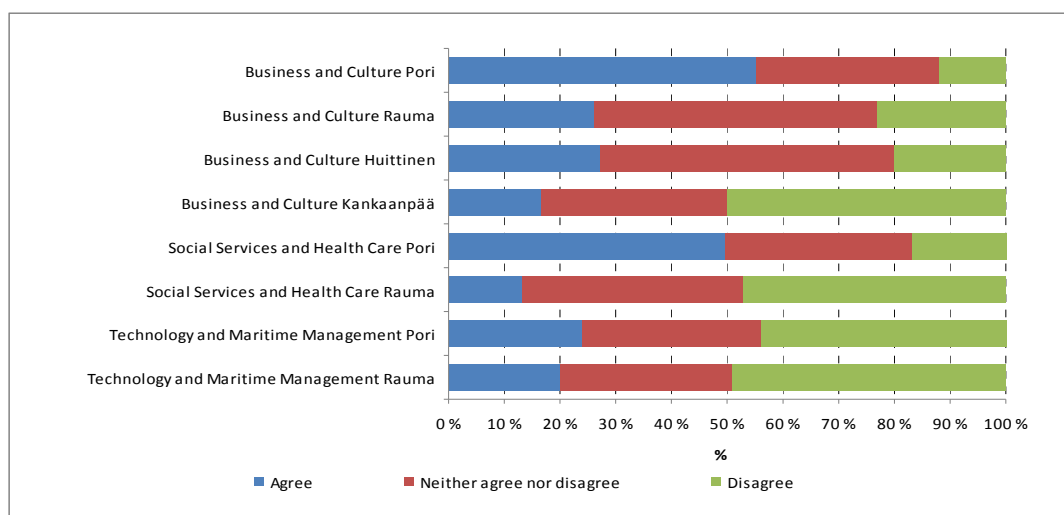


Figure 8. Satisfaction to the provided sport facilities at campuses (n=885;  $p<0.001$ )

Students' interest to participate in organized activities varied greatly by campus. In general 47 percent were interested to participate, whereas 32 percent of the students were not interested. Students in Huittinen were the least interested but in other campuses the amount of students who were interested at least on some level was higher ranging from 41 to 62 percent. In Social Services and Health Care Rauma the amount of students that strongly agreed to be interested were the highest. (Figure 9) Furthermore, younger students are more interested to participate into organized physical activities than older students as the interest declines from 61 percent to 16 percent when comparing the youngest and oldest students (Figure 10).

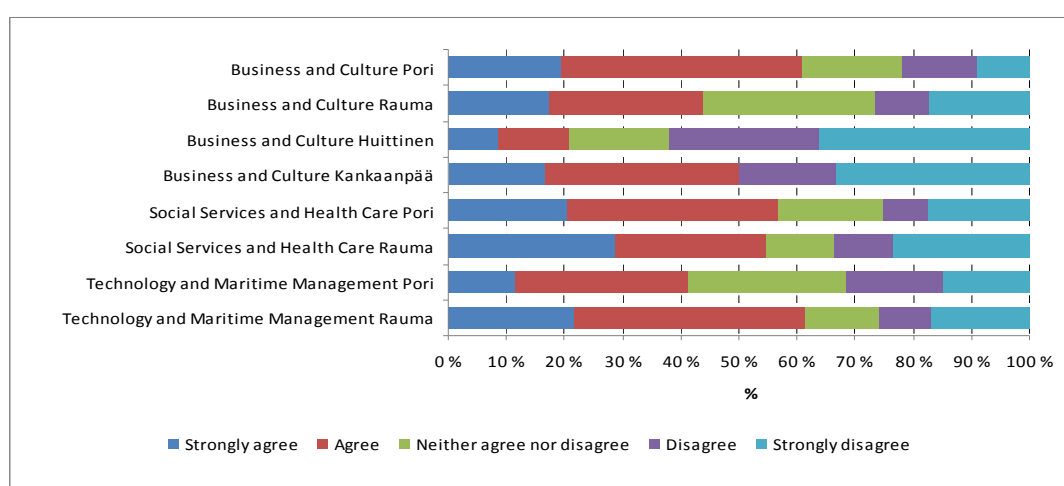


Figure 9. Interest to participate into physical activity organized by SAMK or student union SAMMAKKO (n=906.  $p<0.001$ ).



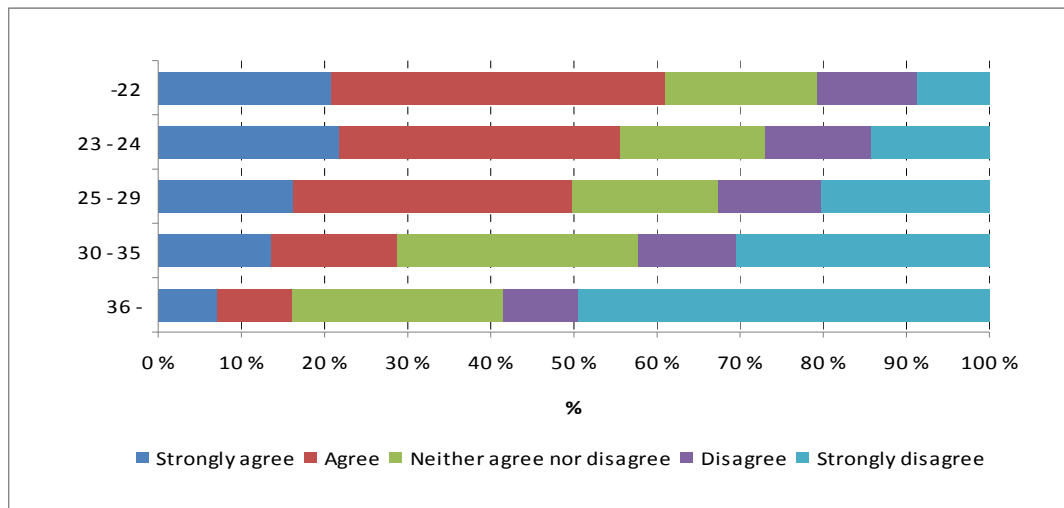


Figure 10. Age groups interest to participate into physical activity organized by SAMK or student union SAMMAKKO (n=940.  $p < 0.001$ ).

Students' interest in physical activity opportunities was in addition investigated with an open question: "In what type of sport opportunities you are interested in?" By far the most mentioned issue was instructed group exercises and as a second was different team sports. Different activities ranged from Zumba to BodyPump, from boxing to dance and to calmer Pilates and Yoga. Students are hoping for more cooperation with commercial and municipal sports services as well as more opportunities to try different physical activities. The cheaper prizes or free of charge activities were mentioned. Part of respondents pointed out the inadequate sport facilities at the campus or the lack of facilities. Respondents were unhappy with the unequal situation between students on different campuses, where some have good sport facilities and offer additional services while some lack even the most basic exercise options. It was also mentioned that the students who study outside their place of residence should be able use the sport opportunities on some other SAMK campus.

## 6 CONCLUSION

This research studied physical activity opportunities offered for students in Satakunta University of Applied Sciences, their level of physical activity and the interest to participate in organized physical activities.

Physical activity possibilities vary between the campuses. On some campuses there are no physical activity facilities and on some the facilities are diverse. Nevertheless, on each location there are possibilities to engage in physical activity even though the campus is not able to provide any facilities. In some places the students are able to use the facilities without limitations and in other locations students have scheduled turns. In Pori the students have had a possibility to buy tickets and participate in instructed activities in Pori Halli. Student union SAMMAKKO does not offer regular activities, but organizes events and campaigns to promote health and increase physical activity among students.

Most of the students engage in daily physical activity 15–30 minutes per day. There were no differences between genders with students that have a larger amount of daily physical activity. Male students use motor vehicle for transportation more commonly than female students. In addition it is more common for male students to engage in daily physical activity less than 15 minutes per day. Students of Technology and Maritime Management as well as students of Business and Culture in Huittinen engage in daily physical activity the least. Use of motor vehicles is more prevalent within older students but also the amount of students that engage in daily physical activity over one hour per day increases.

Students perform aerobic physical activity on average three hours in a week. Every tenth student does not exercise at all, 30 percent exercises up to four times a month, about half multiple times per week and four percent does aerobic physical activity daily. Muscle strength training is performed by 37 percent of the students multiple times per week. One fifth does not engage in muscle strength training at all and 41 percent exercises strength training one to four times in a month.

Students engage in physical activity for multiple reasons. Major factors included both physical and mental reasons. Good physical fitness, enjoyment of exercise and its meaning to health and wellbeing are considered important. Exercising is also a way to control weight and influence the appearance. Furthermore, students recognize more far-reaching effects of exercise for example on workability.

Use of sport facilities on campuses is not very common at the moment; though the frequency varies greatly between the campuses. Younger students use the facilities more than older students and men more frequently than women. On average students are more satisfied with the facilities than they are unsatisfied but the opinions varied to a great extent. Students in Business and Culture Pori and in Social Services and Health Care Pori were the most satisfied.

Students' interest to participate into organized activities varied greatly by campus but on average, half of the students were interested to participate. Unlike in other campuses, in Huittinen the number of students not interested to participate was larger than the amount of students that were interested. In other campuses the amount ranged from 41 to 62 percent. Younger students are clearly more interested to participate in organized physical activities than older students. Students hope for instructed group exercises and team sports. Also co-operation with commercial and municipal sports services is in students' wishes. Part of the students mentioned the inadequate sport facilities or the lack of them as developmental issue. Students were also considered to be in unequal position depending on the campus where they are studying.

## 7 DISCUSSION

In this chapter, reliability and the result of this research is being analysed and evaluated. Furthermore, ideas and recommendations for future studies will be presented.

### 7.1 Reliability of the research

Even though studies pursue to avoid mistakes, reliability and validity vary. Therefore, all researches aim to evaluate the reliability. Reliability refers to the repeatability of the study and in ability to give non-random results. Validity describes the method's ability to measure what is aimed in the study. (Hirsjärvi et al 2007, 226)

Reliability of this research is diminished by the low response rate, which was expected. Even though the response rate was low, the number of answers was still fair. The student survey was intended to be implemented only for the Bachelor Degree Programme students in younger education. Due to a mistake, the questionnaire was also sent to the Bachelor Degree students in adult education, Master's Degree program students and to exchange students. As the Degree Programmes for adult education and Master's Degree programmes were missing from the questionnaire, some of the students were not able to choose their Degree Programme. Therefore, it was not possible to compare results between students in different Degree Programmes. It is also possible the part of the students did not finish the questionnaire as they could not find a suitable alternative for the question.

The questionnaire was piloted before the implementation to discover mistakes, need for corrections and additional instructions. Some of the questions included instructions how to choose the right option. Though, it is hard to evaluate if the respondents have noticed them. They were marked with a question mark after the actual question. This was not the best possible option but the only way to add additional instruction in this program.

Respondents of the questionnaire had a possibility to take part in a draw. For that purpose email addresses were collected from the student wanting to participate. The ethic principles and the anonymity of the respondents' were considered in order to maintain confidentiality. Research data and the email addresses were dealt separately and in confidence. File containing the email addresses was destroyed after the draw.

## 7.2 Evaluation of the results

Research results of this study cannot be compared straight to research done before as the question arrangement was done differently and the answer alternatives was different. This research also investigated factors that have not been search before. It also needs to be taken into consideration that this research did not exclude students over 35 year old as for example Kunttu and Huttunen (2009) did in their research.

Before comparing the amount of students' everyday physical activity to the data of previous studies, it is required to take into account that researches by Kunttu & Huttunen (2009) and Erola (2004) did not have the option "I do the journeys entirely with a motor vehicle". For this reason the data is not totally comparable. However, the results of this research can be thought to be accurate. Compared to the YTHS research (Kunttu & Huttunen 2009), male students in SAMK seem to have less everyday physical activity than what was the average in their study. Female students, on the other hand seem to have more everyday physical activity. (Table 6)

Table 6. Comparison of everyday physical activity in researches

Everyday physical activity	Erola 2004	Kunttu & Huttunen 2008, UAS*			Honkanen 2010		
	All	Men	Women	All	Men	Women	All
I do the journeys entirely with a motor vehicle					13,0 %	7,8 %	9,3 %
Under 15 minutes	~20%	29.2%	30.7%	23.0%	24,0 %	14,5 %	17,1 %
15-30 minutes	~48%	35.3%	41.3%	40.2%	35,8 %	47,1 %	43,9 %
30-60 minutes	~25%	25.2%	17.3%	27.3%	19,3 %	22,0 %	21,2 %
Over an hour per day	~7%	10.3%	10.7%	9.6%	7,9 %	8,6 %	8,4 %

\*UAS Universities of Applied Sciences

Students' engagement to exercise during their free time was investigated with a different type of question arrangement in this research than in previous studies. As UKK-institute gives separate recommendations for aerobic training and for muscle strength training, they were detached in this research. Both Erola (2004) and Kunttu & Huttunen (2009) found out in their research that the average amount of students' exercise is little less than four hours. Based on this research, students in SAMK engaged in aerobic training on average nearly 3 hours per week and trained their muscle strength almost 2 hours per week. The respondents were able to answer to this question only with a whole number. It can be discussed whether the result would be different if the answered would have been given precision of half an hour. Amount of

physically inactive students was on the same than in the previous studies. This study revealed that male students train muscle strength more frequently than females. For the researcher herself this was expected.

No previous information on the usage or about the satisfaction of sport facilities was available before this research. In addition, students' interest to participate in organized physical activities has not been search previously. In the questionnaire Technology and Maritime Management Rauma was considered as one campus although it should have been separated into two distinct parts. Because of this error, no conclusions can be made regarding those campuses as the students' opinions on these separate campuses may differ with a great extent. As the sport facilities in these two campuses vary greatly, it is expected that also the opinions about the satisfaction would differ. Since, instructed physical activities are hoped for in nearly every of the campuses, organizing of them should be planned. Naturally, the easiest way to achieve this is to organize activities in campuses where facilities are adequate and suitable for the purpose. Business and Culture Rauma, both Social Services and Health Care campuses and Maritime Management in Rauma would be options in this matter as there is sport hall in all of these campuses. It needs to be considered that, also the students in other campuses would be able to use these services. It was not surprise to discover that interest to participate in organized activities decline in the older age groups.

With this research, I hoped to find ways to increase students' level of physical activity and to discover ways to improve the exercise opportunities based on students' own opinions. According to the facts presented in this thesis, it is clear that the sports services allocated for students of Satakunta University of Applied Sciences are in a need for improvement. Newly released recommendations for sport services in higher education institutions can be taken as basis when these services are being developed in SAMK. To start with, it is important that sport services will be included to SAMK's strategy. There must be clear plan how the services will be organized to ensure equal access to sport opportunities for students in each of the campuses. As it is not realistic to expect that lacking facilities will be constructed, unique solutions should pursued to seek when planning the services. Part of the campuses already co-operate with municipal and commercial sport services. As the base for this already

exists, it could be developed and extended to involve also the students on other campuses. To develop and organize the sports services SAMK needs an employee who will work to plan and implement these.

Based on this research the students are interested in the sports services and they have opinions and wishes related to the matter. Their ideas should be the basis for organizing services in order for them to correspond to the demands what students set. Students are hoping for instructed exercises. One way to achieved this would be by offering for example to physiotherapy students the opportunity to act as instructors. Thus, SAMK's assets, the students, could be utilized when organizing the services and at the same time the students would get valuable experience in instructing.

### 7.3 Ideas for future research

As the connection between workability and exercise exists based on the literature, it would be interesting research that aspect more. Some of the students within this research also mentioned workability as one of the reasons for exercising. I believe that workability will become even more discussed matter as the government aims to prolong the careers. To affect this fact, it is important that students' ability to study and later on move on to working life is paid more attention.

For further research, I would also suggest to study the reasons behind inactivity. This research, as well as the previous studies on this field, conclude that every tenth of the students do not exercise at all. Finding out the reasons for this behaviour, will be a significant asset when working to activate larger this part of the students.

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## LIST OF APPENDICIES

APPENDIX 1 Research permission

APPENDIX 2 Questionnaire

APPENDIX 3 Tables



SATAKUNNAN AMMATTIKORKEAKOULU  
SATAKUNTA UNIVERSITY OF APPLIED  
SCIENCES

OP21  
TUTKIMUSLUPA-  
ANOMUS  
APPLICATION FOR A  
RESEARCH PERMISSION

## SAMK/TUTKIMUSLUPA-ANOMUS APPLICATION FOR A RESEARCH PERMISSION

Opinnäytetöille ja muille tutkimuksille, jotka kohdistuvat Satakunnan ammattikorkeakouluun.

For theses and other studies which concern Satakunta University of Applied Sciences.

Liitä anomukseen ohjaajan hyväksymä tutkimussuunnitelma. Lähetä anomus SAMKin kehitysjohtajalle hyvissä ajoin ennen tutkimuksen suunniteltua toteuttamisajankohtaa (ME71110). Älä aloita tutkimusta / opinnäytetyön tekemistä ennen kuin olet saanut tutkimusluvan.

Please enclose the research plan approved by your thesis supervisor. Send the application to SAMK's Development Director well before the planned period of implementation (procedural instructions ME71110). Do not start the empirical part of the research before you have obtained the permission.

Tutkimuksen/opinnäytetyön tekijä(t) | Researcher(s)/Student(s): **Jenni Honkanen**

Tekijän/tekijöiden osoite | Address: Valajankatu 6 E 8, 28100 Pori

Sähköposti | E-mail: [jenni.honkanen@student.samk.fi](mailto:jenni.honkanen@student.samk.fi)

(Työ)nimi/aihe | The working title of the thesis/study: Physical activity habits and possibilities of students in SAMK

Toteutuksen suunniteltu ajankohta | Planned timetable of implementation: October 2010

Tekijän koulutusohjelma | Degree programme in which the applicant is studying: Physiotherapy

Oppilaitos, jos muu kuin SAMK | Educational institution if other than SAMK:

Kerätäänkö tutkimuksessa henkilötietoja ja kootaanko niistä henkilötietorekisteri? ☐ kyllä ☒ ei

Shall personal data\*\* be collected and registered during research? ☐ yes ☐ no

\* Henkilötietojen keräämisellä ja tietojen rekisteröinnillä tarkoitetaan yksilöintitietojen (kuten nimi, henkilötunnus, syntymäaika) ja tutkimustietojen kokoamista rekisteriin. (Lisätietoja [www.tietosuoja.fi](http://www.tietosuoja.fi)). Tutkimuksen päätyttyä tutkimusrekisteri joko hävitetään tai arkistoidaan ilman tunnistetietoja.

\*\* Collecting and registering personal data refers to the collecting of individualised data (such as name, personal identity code, date of birth) and research data into a register. (Further information [www.tietosuoja.fi](http://www.tietosuoja.fi)). Upon completion of the research work, the register shall be either deleted or filed without identification data.

Ohjaaja(t) | Supervisor(s): Esa Bärlund

Puolto ohjaajalta | Supervisor's approval:

Puoltolauseet | Supervisor's opinion:

Ohjaajan allekirjoitus | Supervisor's signature

Päiväys | Date and place 28.9.2010

Luvan hakijan allekirjoitus | Applicant's signature

Kehitysjohtajan / Rehtorin päätös | Development Director's / President's decision

Päätösnumero

979 038

☐ tutkimuslupa myönnetään | permission is granted

☐ tutkimuslupa myönnetään ehdollisesti | permission is granted conditionally

☐ tutkimuslupaa ei myönnetä | permission is not granted

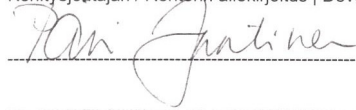
Perustelut | Grounds:

Yhteyshenkilö SAMKissa | Contact person at SAMK

Päiväys | Date and place

4.10.2010

Kehitysjohtajan / Rehtorin allekirjoitus | Development Director's / President's signature



Päätös tiedotetaan opiskelijoille, ohjaajille ja SAMKin yhteyshenkilölle.

Note: The decision shall be notified to the student(s), the supervisor(s) and the contact person at SAMK.

Sisältövastaava: Anne Sankari

Tarkistettu viimeksi: 1.6.2010

Personal details

1. Gender
  - Woman
  - Man
2. Age
3. Campus
  - Business and Culture Pori
  - Business and Culture Rauma
  - Business and Culture Huittinen
  - Business and Culture Kankaanpää
  - Social Services and Health Care Pori
  - Social Services and Health Care Rauma
  - Technology and Maritime Management Pori
  - Technology and Maritime Management Rauma
4. Year of starting
  - 2006 or earlier
  - 2007
  - 2008
  - 2009
  - 2010
5. Degree Programme
  - Automaatiotekniikka
  - Environmental Engineering
  - Fysioterapia
  - Hoitotyö
  - Innovative Business Services
  - International business and Marketing Logistics
  - Kansainvälinen kauppa
  - Kemiantechniikka
  - Kone- ja tuotantotekniikka
  - Kuvataide
  - Liiketalous
  - Liiketoiminnan logistiikka
  - Logistiikka
  - Matkailu
  - Merenkulku
  - Physiotherapy
  - Rakennustekniikka

- Sosiaaliala
- Sähkötekniikka
- Tietojenkäsittely
- Tietotekniikka
- Tuotantotalous
- Viestintä

Physical activity

6. How many minutes you walk or cycle during a day as part of your everyday physical activity?
  - I do the journeys entirely with a motor vehicle
  - Under 15 minutes
  - 15-30 minutes
  - 30-60 minutes
  - Over an hour per day
7. How often do you do aerobic training at least ½ hour at a time, so that you get at least slightly out of breath and sweat?
  - Due to permanent injury or illness I am not able to exercise
  - Due to temporary injury or illness I am not able to exercise
  - Not at all or very rarely
  - 1-3 times per month
  - About once per week
  - 2-3 times per week
  - 4-6 times per week
  - Daily
8. How many hours per week do you do aerobic training?
9. How often do you do muscle training at least ½ hour at a time, so that you get at least slightly out of breath and sweat?
  - Due to permanent injury or illness I am not able to exercise
  - Due to temporary injury or illness I am not able to exercise
  - Not at all or very rarely
  - 1-3 times per month
  - About once per week
  - 2-3 times per week
  - 4-6 times per week
  - Daily
10. How many hours per week do you do muscle training?



## APPENDIX 2 (3/5)

11. How much do you exercise and exert yourself physically during your free time?
  - On my free time I read, watch TV and do chores in which I don't move very much and which don't strain me physically
  - On my free time I walk, cycle, move on some other way or do everyday physical activities at least 4 hours per week
  - On my free time I do fitness training 2-3 times per week in order to maintain my condition
  - On my free time I do fitness training at least 3 times per week in order to improve my condition
  - I am an competing athlete
12. How would you evaluate your physical condition?
  - Good
  - Rather good
  - Not good nor bad
  - Rather bad
  - Bad
13. In my opinion I exercise enough for my health
  - Strongly agree
  - Agree
  - Neither agree nor disagree
  - Disagree
  - Strongly disagree
14. Has your physical activity changed during your studies in University of applied sciences?
  - Has not changed
  - Yes, I exercise more
  - Yes, I exercise less
  - Yes, on average I engage in heavier exercise
  - Yes, on average I engage in lighter exercise
15. What are your reasons to engage in physical activity?
16. What factors limit your engagement in physical exercise? You may choose 3 factors that affect the most.
  - Lack of money
  - Lack of time
  - Absence of suitable form of exercise
  - Lack of sport facilities
  - Lack of motivation
  - Long distance to sport facilities
  - Poor traffic connections to sport facilities

- Absence of convenient group/company
  - Inadequate knowledge of the physical activity opportunities
17. Do you have physical limitations affecting your physical activity?
- No. Move on to question number 20.
  - Yes
18. What is limiting your physical activity?
19. How much the factors you mentioned limit your physical activity?
- Much
  - Quite much
  - Not much nor little
  - Quite little
  - Little
20. Who organizes the physical exercises that you engage in? You may choose 3 options.
- I do not exercise
  - Independently on my own
  - Independently with a friend or in a group
  - School
  - Sports club
  - Adult education centre
  - Commercial sport services
  - Municipal sport services
  - Other organization
21. In what type of physical activity do you engage in? Give examples of the sports.
- Ball sports
  - Endurance sports
  - Power sports
  - Skill sports
  - Mobility sports
22. How often do you use the physical activity facilities of your faculty?
- Never
  - 1-3 times per month
  - About once per week
  - 2-3 times per week
  - 4-6 times per week
  - Daily
23. Sport facilities provided by the faculty are adequate
- Strongly agree
  - Agree

- Neither agree nor disagree
- Disagree
- Strongly disagree

24. I am interested in to participate to physical exercises organized in the faculty's sport facilities

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

25. I would be interested in to participate to physical activities organized by SAMK or student organization SAMMAKKO

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

26. In what type of sport opportunities you are interested in?

## APPENDIX 3 (1/6)

How many minutes you walk or cycle during a day as part of your everyday physical activity?

		I do the journeys entirely with a motor vehicle	Under 15 minutes	15-30 minutes	30-60 minutes	Over an hour per day	N/100%
%							
A l l		9	17	44	21	8	905
Language of the questionnaire p=.0029	Finnish	10	18	44	21	8	872
	English	0	6	48	21	24	33
							<b>905</b>
Gender p=.0003	W o m a n	8	14	47	22	9	650
	M a n	13	24	36	19	8	254
							904
A g e p=.0001	-21	5	15	48	24	8	280
	22 - 24	10	22	46	17	6	325
	25 - 29	12	11	46	23	9	151
	30 - 35	15	22	24	25	14	59
	36 -	13	16	33	21	17	87
							<b>902</b>
Campus p=.0007	Business and Culture Pori	8	22	36	28	6	187
	Business and Culture Rauma	6	16	51	19	9	116
	Business and Culture Huittinen	17	21	40	16	7	58
	Business and Culture Kankaanpää	8	17	42	17	17	12
	Social Services and Health Care Pori	4	12	50	22	11	258
	Social Services and Health Care Rauma	14	8	53	18	6	77
	Technology and Maritime Management Pori	14	23	37	19	7	131
	Technology and Maritime Management Rauma	17	23	35	15	9	65
							<b>904</b>
Year of starting p=.2281	2006 or earlier	13	13	39	25	9	76
	2007	9	24	45	16	6	159
	2008	9	17	50	17	7	180
	2009	8	14	44	24	10	222
	2010	10	16	40	24	9	267
							<b>904</b>

## APPENDIX 3 (2/6)

How often do you do aerobic training at least ½ hours at a time, so that you get at least slightly out of breath and sweat?

[illegible]

## APPENDIX 3 (3/6)

How often do you do muscle strength training at least ½ hours at a time, so that you get at least slightly out of breath and sweat?

[illegible]

How often do you use the physical activity facilities of your faculty?

[illegible]

Sport facilities provided by the faculty are adequate

[illegible]



## APPENDIX 3 (6/6)

I would be interested in to participate to physical activities organized by SAMK or student organization SAMMAKKO

		%	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	N/100%
All			18	33	19	12	17	907
Language of the questionnaire p=.0125	Finnish		18	32	19	12	18	874
	English		18	52	27	3	0	33
								<b>907</b>
Gender p=.8167	Woman		18	34	19	11	18	649
	Man		20	31	19	13	16	257
								<b>906</b>
Age p=<0.001	-21		20	42	19	13	7	280
	22 - 24		22	35	18	12	14	325
	25 - 29		16	33	18	12	20	153
	30 - 35		14	15	29	12	31	59
	36 -		7	9	25	9	49	87
								<b>904</b>
Campus p=<0.001	Business and Culture Pori		19	42	17	13	9	187
	Business and Culture Rauma		17	27	29	9	17	116
	Business and Culture Huittinen		9	12	17	26	36	58
	Business and Culture Kankaanpää		17	33	0	17	33	12
	Social Services and Health Care Pori		21	36	18	8	17	258
	Social Services and Health Care Rauma		29	26	12	10	23	77
	Technology and Maritime Management Pori		11	30	27	17	15	133
	Technology and Maritime Management Rauma		22	40	12	9	17	65
								<b>906</b>
Year of starting p=.7874	2006 or earlier		17	31	26	9	17	77
	2007		14	35	20	11	20	158
	2008		22	31	19	14	15	179
	2009		18	32	17	14	19	224
	2010		19	35	20	10	16	268
								<b>906</b>